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**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Masahiro KOJIMA et al.

Group Art Unit: 1754

Application No.: 10/630,862

Examiner: C. COOKE

Filed: July 31, 2003

Docket No.: 116753

For: OXIDE SUPERCONDUCTOR THICK FILM AND METHOD FOR  
MANUFACTURING THE SAME

**RESPONSE TO RESTRICTION REQUIREMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the August 12, 2005, Restriction Requirement, Applicants provisionally elect Group I, claim 1, with traverse.

The Restriction Requirement alleged that Group I, directed to an oxide superconductor thick film, and Group II, directed to a method for manufacturing an oxide superconductor thick film, are distinct because the product as claimed in Group I can be made by another and materially different method. Applicants submit that the Restriction Requirement is improper.

Group I, claim 1 recites an oxide superconductor thick film containing Bi, Pb, Sr, Ca, and Cu and substantially having a composition of  $(\text{Bi, Pb})_{2+a}\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_z$  to be formed on a surface of a substrate or a base, wherein no fracture surface exists in the vicinity of an interface between the substrate or the base and the oxide superconductor thick film in the oxide superconductor thick film. Group II, claim 2 recites a method of manufacturing the

oxide superconductor thick film as required in claim 1 by first forming a first thick film substantially having a composition of  $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}_2\text{O}_z$  on a surface of a substrate or a base, and then forming an oxide superconductor thick film substantially having a composition of  $(\text{Bi}, \text{Pb})_{2+a}\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_z$  ( $0 < a < 0.5$ ) on the first thick film.

The Patent Office has alleged that the film of claim 1 can be made by a process in which a first thick film is not formed. However, the Patent Office has failed to specify any such process that would achieve the film of claim 1. It is clear from the specification that merely eliminating formation of the first thick film will not achieve the film of claim 1. For example, when a  $(\text{Bi}, \text{Pb})_{2+a}\text{Sr}_2\text{Ca}_2\text{Cu}_3\text{O}_z$  ( $0 < a < 0.5$ ) ("Bi2223") paste is applied directed to a base is then burned to generate a Bi2223 film, the generated Bi2223 film peels off from the base due to a cubical expansion. See page 12, lines 18-23 of the specification. However, in the case where a  $\text{Bi}_2\text{Sr}_2\text{Ca}_1\text{Cu}_2\text{O}_z$  ("Bi2212") film is first formed on the base and then burned to generate a Bi2223 film, the Bi2212 partially molten layer maintains a strong bonding state with the base to restrain the peeling and gradually transforms itself into a Bi2223 film. See page 12, lines 23-31 of the specification.

Thus, Group I, claim 1, and Group II, claim 2, have not been properly established to be distinct from each other. Accordingly, Applicants submit that the alleged basis for Restriction lacks merit, and the requirement should be withdrawn.

It is also respectfully submitted that the subject matter of all claims 1 and 2 is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden. See MPEP §803 in which it is stated that "if the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions"

(emphasis added). It is respectfully submitted that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicants and duplicative examination by the Patent Office.

Thus, withdrawal of the Restriction Requirement is respectfully requested.

Respectfully submitted,



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